

CLAIMS

1. A method of augmenting transient protein synthesis in a cell by delivering to the cell mRNA functionally related to protein synthesis.
2. The method according to claim 1, wherein said delivering step includes intracellularly delivering the mRNA.
3. The method according to claim 1, wherein said delivering step includes delivery of exogenous mRNA.
4. The method according to claim 1, wherein said delivering step includes particle acceleration of the mRNA to the cell.
5. The method according to claim 1, wherein said delivering step includes delivering mRNA related to protein synthesis for use in wound healing.
6. A method of augmenting transient protein synthesis in cells in need of increased protein synthesis by increasing protein synthesis from endogenous cellular mRNA in the cells.
7. The method according to claim 6, wherein said increasing step includes intracellularly delivering mRNA encoding a translational regulatory protein to increase protein synthesis from endogenous protein in the cells.
8. The method according to claim 7, wherein said delivering step further includes delivering mRNA encoding the translation initiation factors to increase protein synthesis.
9. A method of augmenting transient protein synthesis in cells by increasing protein synthesis of growth factors from endogenous cellular mRNA and exogenous mRNA delivered to the cells.
10. The method according to claim 9, wherein said delivering step further includes delivering mRNA encoding a translation initiation factor and mRNA encoding growth factors to increase protein synthesis.
11. A treatment for transiently increasing protein production in cells, said treatment comprising mRNA related to protein production.
12. The treatment according to claim 11, wherein said treatment further comprises growth factor mRNA.
13. The treatment according to claim 12, wherein said growth factor is selected from the group consisting essentially of PDGF- β , ILGF-II, FGF-2, TGF- β , and EGF.
14. The treatment according to claim 12, wherein said treatment includes at least one chemical which increases translation.

15. The treatment according to claim 12, wherein said treatment includes at least one initiation factor.
16. The treatment according to claim 15, wherein said initiation factor is eIF4E.
17. The treatment according to claim 11, said treatment includes at least one initiation factor.
18. A method of augmenting wound healing by delivering mRNA related to a wound.
19. The method according to claim 18, wherein said delivering step includes delivering mRNA that results in proteins related to wound healing.
20. The method according to claim 18, wherein said delivering step includes delivering mRNA that includes growth factor mRNA and initiation factor mRNA.
21. A method of augmenting wound healing by increasing protein synthesis from endogenous cellular mRNA in the wound.
22. The method according to claim 21, wherein said method includes increasing protein synthesis of growth factors from endogenous cellular mRNA in the wound.
23. The method according to claim 21, wherein said method includes intracellularly delivering of mRNA encoding a translational regulatory protein to increase protein synthesis from endogenous mRNA in the wound.
24. The method according to claim 23, wherein said method further includes intracellularly delivering mRNA encoding the translation initiation factor eIF4E to increase protein synthesis from endogenous mRNA in the wound.
25. A method of augmenting wound healing by increasing protein synthesis of growth factors from endogenous cellular mRNA and exogenous mRNA delivered to the wound.
26. The method according to claim 25, wherein said method includes intracellularly delivering mRNA encoding a translational regulatory protein and mRNA encoding growth factors to increase protein synthesis from endogenous cellular mRNA and exogenous growth factor mRNA delivered to the wound.
27. The method according to claim 25, wherein said delivery step includes delivering mRNA encoding translation initiation factor eIF4E and mRNA encoding growth factors to increase protein synthesis from endogenous cellular mRNA and exogenous growth factor mRNA delivered to the wound.
28. The method according to claim 25, wherein said delivery step includes delivering mRNA encoding translation initiation factor eIF4E and mRNA encoding EGF to increase

protein synthesis from endogenous cellular mRNA and exogenous EGF mRNA delivered to the wound.

29. A therapeutic for transiently increasing protein synthesis in cells, said therapeutic comprising mRNA related to protein production.

5 30. The therapeutic according to claim 29, wherein said treatment further comprises growth factor mRNA.

31. The therapeutic according to claim 30, wherein said growth factor is selected from the group consisting essentially of PDGF- β , ILGF-II, FGF-2, TGF- β , and EGF.

10 32. The therapeutic according to claim 30, wherein said treatment includes at least one chemical which increases translation.

33. The therapeutic according to claim 30, wherein said treatment includes at least one initiation factor.

34. The therapeutic according to claim 33, wherein said initiation factor is eIF4E.

15 35. The therapeutic according to claim 29, said treatment includes at least one initiation factor.

36. The therapeutic according to claim 29, further including growth factors from endogenous cellular mRNA in the cells.

20 37. The therapeutic according to claim 29, wherein said therapeutic includes mRNA encoding a translational regulatory protein to increase protein synthesis from endogenous mRNA in the cells.

38. The therapeutic according to claim 29, wherein said therapeutic includes mRNA encoding the translation initiation factor eIF4E to increase protein synthesis from endogenous mRNA in the wound.

25 39. The therapeutic according to claim 29, wherein said therapeutic increases protein synthesis of growth factors from endogenous cellular mRNA and exogenous mRNA delivered to the cells.

30 40. The therapeutic according to claim 39, wherein said therapeutic includes mRNA encoding a translational regulatory protein and mRNA encoding growth factors to increase protein synthesis from endogenous cellular mRNA and exogenous growth factor mRNA delivered to the cells.

41. The therapeutic according to claim 39, wherein said therapeutic includes mRNA encoding translation initiation factor eIF4E and mRNA encoding growth factors to

increase protein synthesis from endogenous cellular mRNA and exogenous growth factor mRNA delivered to the wound.

42. The therapeutic according to claim 39, wherein said therapeutic includes mRNA encoding translation initiation factor eIF4E and mRNA encoding EGF to increase protein synthesis from endogenous cellular mRNA and exogenous EGF mRNA delivered to the wound.

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